Application No.: 10/530,176

Attorney Docket No.: Q86664

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method of increasing the sensitivity of cancer cells or a tumour to a chemotherapeutic agent by contacting said cells or tumour with an isoflavonoid compound of formula 12(VI) or (VII):

wherein

R₁, R₂ and Z are independently hydrogen, hydroxy, OR₉, OC(O)R₁₀, OS(O)R₁₀, CHO, C(O)R₁₀, COOH, CO₂R₁₀, CONR₃R₄, alkyl, haloalkyl, arylalkyl, alkenyl, alkynyl, aryl, heteroaryl, alkylaryl, alkoxyaryl, thio, alkylthio, amino, alkylamino, dialkylamino, nitro or halo, or R₂ is as previously defined, and R₁ and Z taken together with the carbon atoms to which they are attached form a five-membered ring selected from

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, or

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R₁ is as previously defined, and R₂ and Z taken together with the carbon atoms to which they are attached form a five membered ring selected from

Wis R₁

 R_3 is hydrogen, alkyl, arylalkyl, alkenyl, aryl, an amino acid, $C(O)R_{11}$ where R_{11} is hydrogen, alkyl, arylalkyl or an amino acid, or CO_2R_{12} where R_{12} is hydrogen, alkyl, haloalkyl, aryl or arylalkyl,

R₄ is hydrogen, alkyl or aryl, or

R₃-and R₄ taken together with the nitrogen to which they are attached comprise pyrrolidinyl or piperidinyl,

R₆ is hydrogen, hydroxy, alkyl, aryl, amino, thio, NR₃R₄, COR₁₁ where R₁₁ is as previously defined, CO₂R₁₂ where R₁₂ is as previously defined or CONR₃R₄,

 R_9 is alkyl, haloalkyl, aryl, arylalkyl, $C(O)R_{11}$ where R_{11} is as previously defined, or $Si(R_{13})_3$ where R_{13} where each R_{13} is independently hydrogen, alkyl or aryl,

R₁₀ is hydrogen, alkyl, haloalkyl, amino, aryl, arylalkyl, an amino acid, alkylamino or dialkylamino,

the drawing "__" represents either a single bond or a double bond,

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T is independently hydrogen, alkyl or aryl,

R₁₄, and R₁₅ are independently hydrogen, hydroxy, OR₉, OC(O)R₁₀, OS(O)R₁₀, CHO, C(O)R₁₀, COOH, CO₂R₁₀, CONR₃R₄, alkyl, haloalkyl, arylalkyl, alkenyl, alkynyl, aryl, heteroaryl, thio, alkylthio, amino, alkylamino, dialkylamino, nitro or halo, or R₁₄ and R₁₅ are fused together to form a cyclic alkyl, aromatic or heteroaromatic structure,

and pharmaceutically acceptable salts thereof, and,

wherein the cancer is ovarian, pancreatic or prostate cancer, and

the chemotherapeutic agent is platinum-based or anti-mitotic agent<u>cisplatin</u>, carboplatin, paclitaxel, gemcitabine or doxorubicin.

- 2. (previously presented): A method of claim 1, wherein prior to the contacting, the cancer cells or tumour were/was not sensitive to the chemotherapeutic agent.
- 3. (currently amended): A method of claim 1, wherein the compound of formula 12(VI) or (VII) is administered to a subject in need of such treatment.
- 4. (currently amended): A combination therapy for the treatment or prophylaxis of cell proliferation, cancer or a disease associated with oxidant stress comprising administering to a subject a therapeutically effective amount of a compound of formula 12(VI) or (VII) and a chemotherapeutic agent:

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AMENDMENT UNDER 37 C.F.R. § 1.116

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wherein

R₁, R₂ and Z are independently hydrogen, hydroxy, OR₉, OC(O)R₁₀, OS(O)R₁₀, CHO, C(O)R₁₀, COOH, CO₂R₁₀, CONR₃R₄, alkyl, haloalkyl, arylalkyl, alkenyl, alkynyl, aryl, heteroaryl, alkylaryl, alkoxyaryl, thio, alkylthio, amino, alkylamino, dialkylamino, nitro or halo, or R₂ is as previously defined, and R₁ and Z taken together with the carbon atoms to which they are attached form a five membered ring selected from

, or

R₁-is as previously defined, and R₂ and Z taken together with the carbon atoms to which they are attached form a five-membered ring selected from

 $W is R_1$

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R₃ is hydrogen, alkyl, arylalkyl, alkenyl, aryl, an amino acid, C(O)R₁₁ where R₁₁ is hydrogen, alkyl, aryl, arylalkyl or an amino acid, or CO₂R₁₂ where R₁₂ is hydrogen, alkyl, haloalkyl, aryl or arylalkyl,

R4-is hydrogen, alkyl or aryl, or

R₃ and R₄ taken together with the nitrogen to which they are attached comprise pyrrolidinyl or piperidinyl,

R₆ is hydrogen, hydroxy, alkyl, aryl, amino, thio, NR₃R₄, COR₁₁ where R₁₁ is as previously defined, CO₂R₁₂ where R₁₂ is as previously defined or CONR₃R₄₅

R₉ is alkyl, haloalkyl, aryl, arylalkyl, C(O)R₁₁ where R₁₁ is as previously defined, or Si(R₁₃)₃ where R₁₃ where each R₁₃ is independently hydrogen, alkyl or aryl,

R₁₀ is hydrogen, alkyl, haloalkyl, amino, aryl, arylalkyl, an amino acid, alkylamino or dialkylamino,

the drawing "__" represents either a single bond or a double bond,

T is independently hydrogen, alkyl or aryl,

R₁₄, and R₁₅ are independently hydrogen, hydroxy, OR₉, OC(O)R₁₀, OS(O)R₁₀, CHO, C(O)R₁₀, COOH, CO₂R₁₀, CONR₃R₄, alkyl, haloalkyl, arylalkyl, alkenyl, alkynyl, aryl, heteroaryl, thio, alkylthio, amino, alkylamino, dialkylamino, nitro or halo, or R₁₄ and R₁₅ are fused together to form a cyclic alkyl, aromatic or heteroaromatic structure,

and pharmaceutically acceptable salts thereof, and,

wherein the cancer is ovarian, pancreatic or prostate cancer, and

the chemotherapeutic agent is platinum-based or anti-mitotic agent cisplatin, carboplatin, paclitaxel, gemcitabine or doxorubicin.

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- 5.-7. (canceled).
- 8. (currently amended): A method of claim 4, wherein the administration of the compound of formula 12(VI) or (VII) precedes the administration of the chemotherapeutic agent.
- 9. (currently amended): A method of claim 4, wherein the administration of the compound of formula 12(VI) or (VII) and the chemotherapeutic agent is simultaneous.
- 10. (currently amended): A method claim 4, wherein the combination therapy follows observed resistance by cancer cells or tumour to [[a]]the chemotherapeutic agent.
 - 11.-22. (canceled).
- 23. (currently amended): A pharmaceutical composition comprising a compound of formula 12(VI) or (VII) and a chemotherapeutic agent:

wherein

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R₁, R₂ and Z are independently hydrogen, hydroxy, OR₉, OC(O)R₁₀, OS(O)R₁₀, CHO, C(O)R₁₀, COOH, CO₂R₁₀, CONR₃R₄, alkyl, haloalkyl, arylalkyl, alkenyl, alkynyl, aryl, heteroaryl, alkylaryl, alkoxyaryl, thio, alkylthio, amino, alkylamino, dialkylamino, nitro or halo, or R₂ is as previously defined, and R₁ and Z taken together with the carbon atoms to which they are attached form a five membered ring selected from

$$\begin{array}{c|c}
T & O & O & O \\
\hline
T & O & O & O
\end{array}$$

, or

R₁ is as previously defined, and R₂ and Z taken together with the carbon atoms to which they are attached form a five-membered ring selected from

Wis R₁,

 R_3 is hydrogen, alkyl, arylalkyl, alkenyl, aryl, an amino acid, $C(O)R_{11}$ where R_{11} is hydrogen, alkyl, arylalkyl or an amino acid, or CO_2R_{12} where R_{12} is hydrogen, alkyl, haloalkyl, aryl or arylalkyl,

R4-is hydrogen, alkyl or aryl, or

R₃ and R₄ taken together with the nitrogen to which they are attached comprise pyrrolidinyl or piperidinyl,

 R_6 is hydrogen, hydroxy, alkyl, aryl, amino, thio, NR_3R_4 , COR_{11} where R_{11} is as previously defined, CO_2R_{12} where R_{12} is as previously defined or $CONR_3R_4$,

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Ro is alkyl, haloalkyl, aryl, arylalkyl, C(O)R11 where R11 is as previously defined, or Si(R13)3 where R₁₃ where each R₁₃ is independently hydrogen, alkyl or aryl,

R₁₀ is hydrogen, alkyl, haloalkyl, amino, aryl, arylalkyl, an amino acid, alkylamino or dialkylamino,

the drawing "__" represents either a single bond or a double bond,

T is independently hydrogen, alkyl or aryl,

R₁₄, and R₁₅ are independently hydrogen, hydroxy, OR₉, OC(O)R₁₀, OS(O)R₁₀, CHO, C(O)R₁₀, COOH, CO2R10, CONR3R4, alkyl, haloalkyl, arylalkyl, alkenyl, alkynyl, aryl, heteroaryl, thio, alkylthio, amino, alkylamino, dialkylamino, nitro or halo, or R14 and R15 are fused together to form a cyclic alkyl, aromatic or heteroaromatic structure,

and pharmaceutically acceptable salts thereof, and,

wherein the chemotherapeutic agent is platinum-based or anti-mitotic agent cisplatin, carboplatin, paclitaxel, gemcitabine or doxorubicins.

24.-28. (Canceled).